AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A method for detecting and locating the difference in density and/or structure and/or chemical composition of a biological tissue (7) which is subjected to continuous illumination in a first determined band of frequencies, able to cause the tissue to generate a phenomenon of fluorescence, auto-fluorescence or luminescence in a second band of frequencies, comprising:

- capturing an image of the biological tissue illuminated in this way, using colour video means provided with image sensors with a mosaic of pixels provided with filters of complementary colours, the filters having a greater range of reaction compared to filters of primary colours,

- for each point of the image so obtained:

a) collecting data related to the energy received by each pixel, so as to reconstitute the image of the biological tissue (7), and

b) amplifying the signal corresponding to the energy received in the second band of frequencies so as to characterize or cause to appear the said difference of the biological tissue (7) in the image obtained, by acting on signals as received by at

least two neighbouring pixels provided with filters of different colours, said amplification of the signal corresponding to the energy received in the second band of frequencies being realized from pixel to pixel of the image sensor.

2. (previously presented) The method as claimed in claim 1, wherein the data collected in the second band of frequencies is processed so as to characterize the structure difference obtained in a colour other than the colour naturally corresponding to this second zone of frequencies.

3. (previously presented) The method as claimed in claim 1, wherein radiations are added to a band of frequencies of the illumination spectrum that are able to modify the fluorescence spectrum to shift a fluorescence band of parasite fluorescence.

4. (previously presented) A device for detecting and locating the difference in density and/or structure and/or chemical composition of a biological tissue (7), comprising:

- means (1) able to illuminate the biological tissue (7) continuously with a light located in a first determined band of frequencies, so as to cause the tissue to generate a phenomenon of fluorescence in a second band of frequencies,

- colour video means (11) provided with image sensors with a mosaic of pixels provided with filters of complementary colours, the filters having a greater range of reaction compared to filters of primary colours,

- capture and calculation means which, for each point of the image so obtained, are able to collect data related to the energy received by each pixel so as to reconstitute the image of the biological tissue (7), and

- means for amplifying the signal corresponding to the energy received in the second band of frequencies so as to characterize or cause to appear the said difference of the biological tissue in the image obtained, by acting on at least two signals as received by at least two pixels provided with filters of different colours.

5. (previously presented) The device as claimed in claim 4, wherein the device further comprises processing means (13) to process data collected in the second band of frequencies, so as to characterize the structure difference obtained in a colour other than the colour naturally corresponding to this second zone of frequencies.

6. (canceled)

7. (canceled)

8. (previously presented) The method as claimed in claim 2, wherein radiations are added to the band of frequencies of the illumination spectrum that are able to modify the fluorescence spectrum to shift the fluorescence band of parasite fluorescence.

9. (previously presented) The method as claimed in claim 1, wherein said complementary colours are cyan, magenta and yellow.

10. (previously presented) The method as claimed in claim 1, wherein said mosaic of pixels is further provided with a green filter.

11. (previously presented) The method as claimed in claim 1, wherein said first band of frequencies includes a visible part, for each point of the image, said data related to the energy received by each pixel collected so as to reconstitute the image of the biological tissue, are derived from illumination in visible light and from fluorescence produced by said tissue.

12. (previously presented) The method as claimed in claim 1, wherein while translating data for display of each point of the image on a RGB video monitor, said amplifying is realized by providing each red, blue, or green components of at least one

point of the image, in addition with data collected so as to reconstitute the image of the biological tissue with a sum of amplified energy as received by at least two neighboring pixels provided with filters of different colours.

13. (currently amended) The method as claimed in claim 10, wherein said tissue is a tooth[[,]] and the fluorescence of deteriorated parts being in the red, for each point of the image, said amplification is realized by acting on signals as received by at least ~~when~~ two corresponding ~~neighboring~~ neighbouring pixels provided with ~~filters of~~ yellow and green filters,-said amplification comprising amplifying the energy received by the corresponding yellow pixel when said corresponding neighbouring pixels provided with filters of yellow and green are such that the yellow pixel receives energy while the green pixel does not receive energy, and in not amplifying the energy received by the corresponding yellow pixel when said corresponding neighbouring pixels provided with filters of yellow and green are such that the yellow pixel receives energy while the green pixel is saturated ~~are such that the yellow pixel receives energy by providing each red, blue or green components of at least one point of the image, in addition with data collected so as to reconstitute the image of the biological tissue with a sum of amplified energy as received by two neighboring pixels provided with filters of yellow and magenta~~.

14. (currently amended) The method as claimed in claim 12, wherein said tissue is a tooth[[,]] and the fluorescence of deteriorated parts being in the red, for each point of the image, said amplification is realized by acting on signals as received by at least ~~when~~ two corresponding ~~neighboring~~ neighbouring pixels provided with ~~filters of~~ yellow and green filters, said amplification comprising amplifying the energy received by the corresponding yellow pixel when said corresponding neighbouring pixels provided with filters of yellow and green are such that the yellow pixel receives energy while the green pixel does not receive energy, and in not amplifying the energy received by the corresponding yellow pixel when said corresponding neighbouring pixels provided with filters of yellow and green are such that the yellow pixel receives energy while the green pixel is saturated ~~are such that the yellow pixel receives energy by providing each red, blue or green components of at least one point of the image, in addition with data collected so as to reconstitute the image of the biological tissue with a sum of amplified energy as received by two neighboring pixels provided with filters of yellow and magenta~~.

15. (new) The method as claimed in claim 1, wherein the action on signals as received by at least two neighbouring pixels provided with filters of different colours is realized with

consultation of the energy received on another neighbouring pixel.

16. (new) The device as claimed in claim 4, wherein said device is adapted to act on signals as received by at least two neighbouring pixels provided with filters of different colours, said amplification of the signal corresponding to the energy received in the second band of frequencies being realized from pixel to pixel of the image sensor.

17. (new) The device as claimed in claim 16, wherein the act on signals as received by at least two neighbouring pixels provided with filters of different colours is realized with consultation of the energy received on another neighbouring pixel.